Is Project Organising Temporary?

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Presented at European Academy of Management, 2013
Istanbul, Turkey
Abstract

It had become axiomatic in research on project organising that projects are temporary organisations. Yet there are a number of challenges to this axiom: research on matrix organisation, the embeddedness of projects in project ecologies, and projectification all emphasise the relationship of the project to permanent organisations. Similarly, research on project-based firms and owner organisations challenge this axiom. This paper develops a model of project organising which combines the three domains of project, project-based firm, and owner organisation and emphasises the importance of sophisticated programme partners at the interface of all three. The model draws our attention to two important areas for future research. The first is the interfaces between the three domains of project organising: assurance, resourcing and governance. The first two of these are particularly under-researched. The second is project organising as temporary configurations of permanent organisations coming together in coalitions to deliver particular outputs. In particular, more research would be beneficial on how such coalitions move through the project life-cycle.

Key Words

Temporary organisation, project-based firm, owners, governance, assurance
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Introduction

Is project organising temporary? It has become axiomatic in the literature on project forms of organising that it is. The aim of this paper is to challenge that axiom and to argue that most project organising is done by relatively permanent forms of organisation. We will further argue that the conflation of project organising with temporary organising has limited the development of research in the field. We will develop our argument through a critical review of the literature, focusing on key contributions which have developed distinctive positions relevant to our argument rather than claiming to be comprehensive. First, we will review the literature on temporary organisation, showing how it has created an impressive intellectual momentum. We will then turn to a more recent body of literature which provides an important, but largely unnoticed, theoretical challenge to the literature on temporary organising – the literature on project-based firms. We will then turn to an important gap left by these two literatures which has received relatively little attention both empirically and theoretically – the role in project organising of the owners and operators of the outputs created by the project.

On the basis of these three reviews we will develop and present a more comprehensive model of project organising across the three domains of projects, owners, and suppliers which provides the principal theoretical contribution of this paper. This model will allow us to suggest that some of the most interesting research challenges in project organising lie at the interfaces between the three domains of project organising. The model also reveals the importance of a newly emerging form organisation that sits at the interface of all three domains – programme partners. Implications for theory in project organising and suggestions for further research follow.
Project Organising as Temporary Organising

The Project Management Institute in the 4th Edition of its Project Management Body of Knowledge provides an authoritative statement of the temporary organising axiom, defining a project as “a temporary endeavor undertaken to create a unique product, service or result”. This statement is supported by the organisational research literature over the past 50 years. Goodman and Goodman examined theatrical productions as examples of temporary organisations defined as “set of diversely skilled people working together on a complex task over a limited period of time” (1976: 494). In its focus on the execution by individuals of time-limited and complex tasks and the associated human resource issues, this pioneering research influenced a considerable body of later research in the entertainment sector, particularly film. Jones (1996) examined the ways in which careers developed in the context of multiple deployments in temporary film organisations, while DeFillippi and Arthur (1998) show how such temporary organisation raise important challenges to the dominant precepts of organisation theory.

More recent research has deepened the insights around the relationships between tasks, people and their development. Bechky (2006) developed on the basis of intensive ethnographic work in the film industry a more nuanced analysis, showing how particular deployments and inter-personal relationships were indeed temporary, but also how such relationships could only be negotiated on the basis of more long-lasting notions of role in the context of expectations of future interactions on other projects. Kellogg et al (2006) turn their attention to the ways in which cross-boundary coordination is achieved in “heterarchic” organizations such as an internet start-up company, creating a “trading zone” which enables project coordination in fast-paced, temporary and volatile conditions.
A second contribution to the temporary organising axiom has been work on engineering and construction projects. Drawing on research on the Apollo programme, Wilemon and Gammill (1971) and Wilemon (1973) focused on interpersonal conflict within temporary project organisations. Drawing on interviews with NASA project and technical personnel, they argued that the temporary nature of project organisations placed particular demands on the project managers because they had to interface with multiple parties to ensure mission success, and that their ability to subtly deploy power was critical. Bryman et al (1987) provided a thorough review of the literature to date and then applied the notion of temporary system to a construction project. They found themes that were already familiar from the literature such as the stress and interpersonal conflict inherent in temporary organisations and emphasised the important of the time dimension in the management of such organisations.

Implicit in much of the early literature on engineering and construction projects is a notion of a distinctive project life-cycle as it progresses through time towards its predetermined end, although it is typically not the focus of the analysis offered. Morris (1994) presents a variety of different life-cycles garnered from different sources, while Wheelwright and Clark (1992) present some different types of “funnel” for new product development projects. In some sectors, such as defence procurement, such life-cycle models can attain the status of law. The majority of life-cycle models appear to focus on specifying key decision points, an approach that has now widely disseminated in the shape of stage-gate project process models (Cooper 1993).

Despite a significant body of organisation and management research on temporary project organisations, it remained rather fragmented, and was certainly failing to meet Wilemon and Cicero’s (1970: 282) aspirations for a “general theory of project management”. Lundin and Söderholm (1995) drew generally on this research tradition to develop their “theory of the temporary organisation”. They argued for an action-based theory with the project process
articulated in terms of basic concepts of task, team, time and transition sequencing through four sequencing concepts denoting phases of the project. They thereby combined the concepts of the project as temporary organising and the project life-cycle. Packendorff (1995) picked up this theme, arguing that conceiving of the project as a temporary organisation was the way to move beyond the concept of the project as a delivery tool which pervades the professionally orientated research on the topic. In contrast, Turner and Müller (2003) argued that defining the project as a temporary organisation is entirely consistent with viewing the project as a delivery tool – or production function in their terms – and showed its deep roots in the mainstream professionally-orientated project management literature. Bakker (2010) provides a recent review of the literature on temporary organisational forms, showing how pervasive the association of project organising and temporary organising has become.

However, as the association of temporary organising with project organising steadily achieved axiomatic status, there were a number of other contributions that, in effect, challenged this association. The work early work on engineering projects also identified the development of “matrix organisation” in which the temporary organisation was “superimposed upon the functional organization” (Wilemon and Cicero 1970: 271), and so much attention was given to the boundary position of the project manager between the temporary and permanent organisations (Gaddis 1959) and the conflict inherent in such a role. The theory of matrix organisation was developed by Galbraith (1970) in his work on Boeing and became part of the mainstream organisation theory on organisational coordination mechanisms (Mintzberg 1979; Winch 1994). While matrix organisations were often characterised as unstable (e.g. Greiner and Schein 1981), this is not the same as characterising them as temporary organisations.

Within the media sector, research attention was also turning to the relationship between the temporary and the permanent. While the work on the film industry did note in passing the
geographical clustering of film production, Grabher’s (2002) work fully articulated the theoretical implications and again focused on the interdependencies between temporary organisations and permanent organisations. In a study of the London advertising industry, he identified the importance of the “project ecology” of a deep pool of expertise with strong interpersonal connections which could be mobilised on particular projects for clients. Complementary work on the Munich software cluster (Ibert 2004) showed how the linear notions of time in temporary project organisations are in tension with the more circular notions of time in permanent firms within the project ecology.

A third challenge to the dominance of the notion of temporary organisation came from the work on “projectification” as a process of change in permanent organisation. For instance, Midler (1995) shows how Renault evolved towards a project-based organisation for new product development over 30 years towards a more project-orientated organisation. Similarly, Winch et al (2012) shows how a research laboratory managed its change from a functionally orientated organisation to a project orientated one. On this evidence, projectification is the process of change by the firm towards management by projects (Gareis 1989; 2010) but it remains management by the firm of its projects rather than the creation of a shoal of temporary project organisations.

Our review of the literature on projects as temporary organisations has shown that the concept has deep roots in both the academic research literature and the evolving professionally-orientated literature over the last 50 years which have reinforced each other to the extent that the project organising and temporary organising are now seen as synonymous by many. However, we have also identified other literature that, while happy to adopt the notion of temporary organising as a positioning for its contribution, in practice subtly questions the characterisation of temporary organising as most clearly articulated by Lundin and Söderholm (1995). This is because the literatures on matrix organisation, project
ecologies, and projectification all in different ways place the emphasis upon the interactions between the temporary project organisation and the permanent organisations that resource it. This implies doing more than merely acknowledging the context of the temporary organisation as Bakker (2010) does. Engwall (2003) argues that “no project is an island” and that the scope of analysis needs to be extended both temporally and organisationally with attention of the interface of the project to its “parent” organisation.

This paper aims to contribute to the development of a more holistic perspective on project organising that builds on the contribution of Lundin and Söderholm, but also develops the insights of Engwall (2003) to broader effect. However, before we turn to the next step of the argument, it is worthwhile addressing a definitional problem in the pervasive temporary/permanent dichotomy. One obvious problem with this distinction is that no organisation is permanent, so projects are temporary in only a relative sense and some “permanent” firms do not survive the projects on which they are working – the Wembley Stadium project was particularly notorious in this respect (Winch 2010). So, we suggest that the crucial distinction is not that the project is temporary, but that it is determinate. That is, from the outset it is known by all participants that it will be terminated at some pre-agreed point in the future and that point becomes, fairly early in the project life-cycle, a deadline agreed by the parties to the project. Other types of organisations are, in contrast, indeterminate in that while they could disappear at any moment due to force majeur, they operate as going concerns without anticipation of termination at any particular point in time. This distinction also helps to clearly distinguish project organisations from the more diffuse category of all temporary organisations, many of which are not project organisations (Bresnen et al 1987). We will therefore use “temporary” and “permanent” as shorthand for this distinction as we develop our argument.
Following Engwall (2003), we will now turn to the “parent” organisations of projects. In his case, the focal organisation was an energy utility. Energy utilities earn their keep by generating and distributing energy to customers, both commercial and retail. None of this requires a project form of organisation. However, when utilities wish to either expand or upgrade their ability to deliver energy to customers, they typically engage in significant asset acquisition projects – hence the two embedded cases explored by Engwall. Energy utilities are therefore the owners and operators of energy networks, and intermittently invest in projects to develop those networks. These projects arise out of the ongoing business activities of the utility, and such projects are usually (excepting so-called “licence to operate” projects) the result of a strategic initiative by the firm. It is important to note that the “core business” (Kay 1993) of an energy utility is not to build power stations or transmission networks, but to deliver energy to customers; thus the assets created by investment projects are the infrastructure by which energy is generated and transmitted and are only of value to the extent that they support that core business. One way of defining the core business of a firm is to use Porter’s (1985) “value chain” concept to identify the “primary activities” of the organisation, while the development of infrastructure to enable those activities is part of the “support activities”.

The role of firms as owners and operators of infrastructure that enable the delivery of goods and services to customers on a continuing basis has important implications for project organising. In this perspective it is perceived inadequacies in the existing business infrastructure that generate investment projects such as those discussed by Engwall. These perceived inadequacies can arise from dilapidation (the hydroelectric power station case); the opportunity to take advantage of new technologies to improve the integrity of service delivery (the HVDC case); the need to expand capacity to meet demand (airports); or
business opportunities offered by disruptive technologies (railways in the early 19th century; mobile phone networks today); and many other dynamics.

Similarly the public sector and its agencies are the owners and operators - depending on the jurisdiction – of infrastructure to deliver transportation services (e.g. roads); health services (e.g. hospitals); education services (schools) and many others. Similarly, government is the sole source (in most jurisdictions) of demand for defence materiel. Even if a firm or government agency does not rely upon physical infrastructure to deliver goods and services to customers and citizens, information technology infrastructure is vital for the effective operation of most organisations (Duncan 1995). The pervasive reliance on business of business information systems such as SAP is one example of this, but bespoke systems can also be important for competitive advantage. One example is Apple’s iTunes infrastructure which links together all its innovative consumer products into a systemic whole and meets Barney’s (1991) VRIN criteria more clearly than any particular Apple product, many of which are presently being superseded in the market by companies such as Samsung.

In contrast to the extensive literature on temporary project organising, project organising by permanent owners and operators of business infrastructure – be it physical or information systems – has received little explicit attention. Rather, much of the literature is generic in the sense that it appears to be applicable in the same say to both the project organisation and the owner organisation. For instance, across an influential set of reviews of the project management field Söderlund (2004; 2011) does not identify any distinction between the temporary project organisation and the permanent organisation that owns the output being created. This is despite (2004: 187) posing the question “why do project organizations exist?” From an owner organisation perspective, the answer to this question would be “to develop strategically our business infrastructure”.
An important exception to this generalisation is a body of literature drawing on data from project benchmarking studies which emphasises the owner role. Independent Project Analysis (IPA) provides project benchmarking services in the engineering construction sector, working for clients such as international oil companies on the performance of their projects. This data set is confidential to those who are members, but a sub-set underpins the arguments in Merrow (2011) on megaprojects and the broader data set tells much the same story. This, in essence, is that contractors cannot do owner’s work. “The contractor’s job is to deliver a project as specified, on time and on budget. The owner’s job is to specify the right project” (2011: 126). These results are supported by an analysis of Construction Industry Institute benchmarking data (Hui et al., 2008) which reports that construction owners who exhibit high ‘owner dominance’ tend to achieve better performance on their projects, where the construct is operationalised as the proportion of project activities performed by the owner.

Project Suppliers

Owners and operators do not usually undertake entire projects themselves; they typically hire (indeterminate) suppliers of project-related services which are usually organised as project-based firms (Whitley 2006). As Merrow notes above, the supplier plays a very distinctive role on the project in contrast to that of the owner. While there are many different kinds of project-based firm (Whitley 2006), and some, such as film production companies (DeFillippi and Arthur 1998) or special purpose vehicles for private finance projects are determinate in life expectancy, many are of considerable age and substance as suppliers to owners and operators such as the P-form organisation (Söderlund and Tell 2009) specialising in supplying electrical generation and distribution assets to energy utilities. Unlike owners, which are located both in the public and private sectors depending on policy in the particular jurisdiction, suppliers are almost always in the private sector, although for the exception of a
government laboratory providing contract research services to a number of different government departments see Winch et al (2012).

One body of research on project-based firms has been concerned with innovation in suppliers of “complex product systems” such as flight simulators which are commissioned by “users” (owners and operators as defined above; airlines in this particular case) and supplied by “systems integrators” who draw on networks of specialised and other suppliers (Miller et al 1995). Hobday (2000) then goes on to argue that the project-based organisational form is the most appropriate for the efficient and effective supply of complex products and systems such as medical equipment to owners and operators. Further research on this theme has identified the project-based firm and its project capabilities as central to competitive advantage in high technology industries (Brady and Davies, 2004; Davies and Brady, 2000). Similarly, Ethiraj et al (2005) identify the importance of project management capabilities in the performance of software services firms. This work is also important for identifying at least two very different types of project-based firm – the systems integrator that supplies and integrated asset to the owner/investor, and the specialist technology supplier which provides subsystems and often trades in proprietary technology.

Another body of work focused on project-based firms is that on “project business” (Artto and Wikström 2005; Cova et al 2002) and different kinds of business models for project-based firms (Wikström et al 2010; Kujala et al 2010). Although the bibliometric study which underlay the initial formulation of the concept cast its net widely, the case study research through which it is being developed has focused on sectors such as shipbuilding (Ruuska et al in press;), metallurgical processing equipment (Mutka and Aaltonen 2013), and automation equipment (Ahola et al in press). The research, therefore, covers firms in many of the same sectors as the work on complex product systems (Hobday 1998) and shares its definition of the project-based firm as a supplier to owners and operators in sectors such as shipping and
resource extraction. As a result, moves have been made towards a joint perspective (Artto et al 2011), while Davies and Hobday (2005) provide an extended treatment of the project-based firm.

Project Organising: An Integrative Model

We have now reviewed three bodies of literature that address important issues in project organising. We have reviewed the extensive research on temporary organising which assumes either implicitly or explicitly that the project organisation in determinate and has become axiomatic the project management discipline for both research and practice. We went on to review two other bodies of literature that have pursued important lines of enquiry in the field of project organising. The first looks at the project-related activities of owners and operators of the (typically complex) products delivered by the project; the second looks at the project-based firms which supply the resources required for the project so that it can deliver to the potential owner. Both of these types of organisations are typically permanent in the sense defined above. Figure 1 attempts to capture this view of the scope of project organising showing how the three different types of organisation that make up the “organisational field” (Sydow et al 2004) of projects.
Figure 1. A Summary Model of Project Organising

The model shows the three principal organisational types in the organisational field of projects – the temporary project or programme; the relatively permanent owner and operator; and the relatively permanent suppliers. Owners supply the capital resources to the project as investors; suppliers provide the human and material resources to the project. As with many conceptual models, the most interesting areas of this model are probably not the main circles identifying the three domains of project organising, but the interfaces between the domains in
the Venn-like overlaps. Indeed, they supply some of the most interesting and currently challenging areas of research in project organising: assurance, governance and resourcing.

Permanent/permanent Interface: Owners and their Suppliers

Turning first to the interface between the owner organisation (firm or public agency) and the supplier firm, a number of important areas of current research can be identified. The first is the broad area of *governance*; that is the commercial relationship between the owner and its suppliers on the project (Lowe with Leiringer 2006). Commercial relationships have received relatively little attention in the mainstream project organising literature despite their empirical prevalence, although in the construction management literature commercial issues are a pervasive concern (see Winch 2010 for a review). One issue with this literature is that the owner and operator becomes a “client”; that is the focus of attention is entirely on the owner and operator as a purchaser of services for the delivery of the project, rather as a strategic actor in its own right, although see Boyd and Chinyio (2006) for a sustained attempt to broaden the perspective. While there are both important policy concerns regarding the role of clients in relation to the projects they promote (NAO 2009) and more recent research around the notion of the “intelligent client” (Aritua *et al* 2009;2011) this work remains focused on the owner and operator as client rather attempting to relate the client role to the broader owner strategy. A rather different perspective has emerged from the interaction between the supply chain management literature and the complex product systems literature discussed above with the focus on the procurement of “complex performance” (Caldwell and Howard 2010), yet this work does not address in an organisational way why owners and operators should wish to switch from procuring assets to procuring performance.

Economists have also paid attention to these issues, particularly to the selection of supplier firms. Auction theory has been influential in work on the design of supplier bidding processes
election through bidding processes (Bajari et al 2008; McAfee and McMillan 1986; McAfee and McMillan 1987; Samuelson 1986; Vickery 1961), as has game theory (Brown et al 2010). However, this work remains tightly focused on the selection problem and does not address the wider issues in governance of the owner/supplier relationship. A broader perspective from economics which has the potential to locate relationships between suppliers and owners as part of the theory of the boundaries of the firm is transaction cost economics (e.g. Williamson 1996). There have been a number of applications of the transaction cost approach to buyer supplier relationships in a project context by both economists (e.g. Chang, in press; Chang and Ive, 2007; Corts and Singh 2004; Crocker and Reynolds 1993; Masten et al 1991; and organisation theorists (e.g. Winch 2001; Stinchcombe and Heimer 1985). The perspective has also been extended to relationship between firms within the supply chain (González-Dias et al 2000). However, this work has yet to be integrated into a more comprehensive theory of the firm and inter-firm relationships in a project context which would be required for a full transaction cost theory of economics and project organising, and there remain important questions regarding its value for understanding project governance (Sanderson 2012).

A very different approach develops the perspective on business models used by project-based firms discussed above to investigate the range of different services that suppliers can offer owner with respect to the projects they promote, in a broader perspective of “project marketing” (Cova et al 2002). Kujala et al (2013) identify the range of services offered by suppliers from finance for the project through to through-life support for the asset delivered by the project, while Wikström et al (2009) show the ways in which supplier firms mature in the development of their service offer to owners. One weakness of this line of enquiry is that it is rather descriptive, and is not presently influenced by the theory of the firm, and the notion of business model it deploys does not take into account the financial aspects that are
central to strategic management (Kay 1993). A second is that the reasons why owners and operators are prepared to extend the range of services that they buy remains under-researched. An important exception to this generalisation is the work on public/private partnerships which has paid significant attention to why public agencies are now buying a broader range of services from their suppliers (e.g. Hodge et al 2010). A rapprochement with the theory of the firm (Milgrom and Roberts 1992) from economics and both the positioning (Porter 1985) and resource-based (Barney 1991) views of the firm from strategic management would greatly enhance this literature.

The commercial management literature and transaction costs literatures tend to approach governance issues from the perspective of the owner, even if they, implicitly or explicitly, reduce the notion of owner and operator to that of client. The project marketing literature tends to approach governance issues from the point of view of the supplier. However, central to the notion of governance derived from transaction cost economics (Williamson 1996) is the nature of the *relationships* between firms – in our case between the owner and operator and its suppliers of project services. From this perspective, the commercial management literature needs to pay more attention to the dynamics of the relationships between firms. While the literature on partnering does indeed focus on the nature of relationships, it has tended to be normatively driven (Bresnen 2007) and would warrant a more critical approach. At the same time, the project marketing literature needs to pay more attention to the reasons why owners and operators are changing the mix of services they procure from project-based firms.

**Permanent/temporary Interface: Owners and Their Projects**

Owners and operators are the principal suppliers of financial resources to project organisations. Typically they do this out of operating surpluses or from loans secured as a
floating charge on the business. An important exception to this generalisation is the use of “project finance” (Morrison 2012) in which the loan is secured on the assets being generated by the project. However the finance is raised by the project promoting owner and operator, the capital budgeting process by which the available capital is allocated to viable projects is one of the most important strategic processes in any firm (Bower 1970). There has, however, been relatively little recent work on how firms allocate resources to projects with the important exception of work on the selection of transportation projects by the public sector. Flyvbjerg et al (1993) developed and analysed a data base of transportation projects which showed their chronic tendency to both overestimate benefits and underestimate costs. They argued that this could not be due to estimating error because that would introduce a normal distribution of outcomes around the mean; rather, they identified a systematic bias towards estimates favourable to the promoters of projects. This suggested that project promoters were engaging in deception through “strategic misrepresentation”, or the deliberate distortion of the investment appraisal process, or at the very least, suffered delusion from a more unconscious “optimism bias” in their investment appraisals (Flyvbjerg et al 2009). Subsequent work has focused on the policy prescriptions which can improve the quality of investment appraisal (e.g. Flyvbjerg in press; Priemus et al 2008; Williams et al 2009).

The outcome of the capital budgeting process is the portfolio of projects selected for investment by the firm. From a financial perspective (Markowitz 1952), the portfolio optimises the potential of the firm to maximise the returns on its investment capital. This approach has more recently developed into a real options perspective (Smit and Trigeorgis 2009) in which investment projects can be conceptualised as options “safeguarding” (Gil 2007) future investments, and can be complemented by analytic hierarchy process techniques (Angelou and Economides 2008). However, from a resource-based view of the firm (Barney 1991) these financial approaches are limited because finance (capital) is only one of the
resources required for investment projects and, in some ways, it is the most readily available. Penrose (1995) argues that the principal constraints to the growth of the firm is managerial capability; firms typically grow either by exogenous investment in mergers and acquisitions or endogenous investment in new product and services and the infrastructure to get them to market. Thus the ability of the firm to manage its investment projects is a major constraint on the size of its investment portfolio and hence its ability to grow independently of its ability to access the required capital.

One way in which firms have attempted to grapple with the challenges of managing their portfolios of investment projects is through portfolio management (Martinsuo in press), and project portfolio management becomes an important element in the strategic management of the firm (Killen *et al* 2012). However, project portfolios tend to be incomplete (Blichfeldt and Eskerod 2008) and fall short of the widely accepted definition of “a group of projects that are carried out under the sponsorship and/or management of a particular organisation” (Archer and Ghasamzadeh 1999: 208). This is the challenge of “skunk works” (Stalk and Hout 1990) where projects are promoted by enthusiastic managers outside the mandated resource allocation processes. Kidder’s (1982) case study of the Eagle project provides one (successful) example, while Bower (1970) recounts the tale of one group of managers who built an entire factory out of works requisitions, and only came to the attention of senior management when they were forced to enter the resource allocation process to build the factory chimney because it was too expensive to be ordered through works requisitions.

Such considerations are addressed by the challenge of assurance (NAO 2010), or the processes by which owners and operators assure themselves that they have selected the most appropriate projects and that they are progressing as desired. At the core of most project assurance processes is some kind of stage-gate process (Cooper 1993) which addresses the “who, when, what” questions (Winch 2010) of who should make decisions on the progress of
project when in the life-cycle on the basis of what information. This can be complemented by the three “lines of defence” for assurance – effective project controls by the client project team; internal assurance functions independent of the project team; and external audit (Hone et al 2011). Williams et al (2010) provide case studies of assurance on government projects, demonstrating the rather mixed implementation of assurance arrangements, while Young et al (2012) show how limited the impact of formal assurance procedures has been on government projects.

One problem with formalised procedures such as stage gates is that closing the gate on the project can be much the same as closing the stable door once the horse has bolted; similar problems apply to essentially lagging indicators such as the “lines of defence” of formal assurance. A different approach is to pay attention to early warning signs of difficulties emerging on the project, especially “gut feelings” (Williams et al 2012). Grenny et al (2007) have argued that there is a crisis of silence on projects as difficult conversations are not had by those responsible for the project. The importance of the owner’s project manager regularly walking the project – particularly when it is on site – has also been identified (Hopkins 2012).

All this effort at oversight of the project requires that the owner’s project management team is adequately staffed – understaffed owner teams are a major source of project failure (Merrow 2011).

In her review of portfolio management, Martinsuo (in press) calls for more practice studies of what project portfolio managers actually do. The same argument could be applied to all the areas covered in this review. Despite its enormous importance, there is remarkably little detailed research on the managerial processes of project selection, portfolio management, and oversight of the project through the life-cycle – the basics of assurance. Perhaps the best source we have remains Bower, and his conclusion (1970: 303) that a project proposal “must be regarded as a ‘move’ in a complicated game with economic, organizational and
interpersonal implications” remains highly relevant for research on project organising. Bad projects remain hard to kill (Royer 2003) and much more research is required on effective assurance.

Temporary/permanent Interface: The Suppliers of Resources to Projects

Suppliers are procured by owners acting as clients to supply human and material resources to the investment projects that they promote. Few owners retain the human resources in house for the delivery of their projects beyond their own project management capabilities, and they typically fail to retain enough of these (Merrow 2011). For the delivery of their projects they rely on the resources supplied to them by project-based firms. Engwall and Jerbrant (2003) noted nearly 10 years ago how little research there had been on the resource allocation problem, and that observation remains largely true today. Even project scheduling techniques that explicitly take into account resources such as critical chain (Goldratt, 1997) are of recent development and are still not diffused widely – project planners still tend to assume that resources are infinite when scheduling projects (Winch 2010).

Human resources lie at the heart of the issues here (Huemann et al 2007). Engwall and Jerbrant (2003) show how different projects in a supplier of signalling systems compete with each other for human resources – here the crucial issues are the interfaces between projects as managers of the project-based firm juggle their human resources between projects. This can lead to problems of “project overload” (Zika-Viktorsson et al 2006) as human resources are stretched between projects. However, it should be noted that these overload problems are not always a function of the external workload, but can also be generated by poor management of the available human resource pool (Bayer and Gann 2006).

While the resourcing of individual projects by the project-based firm remains a challenge which has received relatively little research attention, a longer term issue which has received
even less attention is “maintaining the resource base” (Winch 2000). If the project-based firm is the principal source of the human and material resources required by the project, then it needs to give attention to the renewal of those resources through training and innovation respectively. The episodic nature of project work tempts project-based firms to rely heavily on a casualised workforce of both technical professionals and craft workers which offers high flexibility for both employer and worker – this arrangement is at the heart of the project ecology (Grabher 2002). However, such casualisation can seriously undermine the development and renewal of skills (Winch 1998). While the workers are typically highly skilled when they enter the project ecology, the driven nature of such labour markets (Evans et al 2004) leaves little time out for the renewal of those skills.

Similarly, project-based firms face significant difficulties in innovation (Acha et al 2005; Gann and Salter, 2000; Scarborough et al 2004) – that is they find it difficult to develop novel solutions to the problems owners and operators have in their investment projects whether those are generated by new opportunities, desires to reduce budget and schedule, or regulatory challenges. The episodic nature of projects and the decentralised nature of project-based firms makes traditional centralised approaches to R&D difficult and worsen the problems of learning from projects. An important opportunity for innovation in project-based firms is base-moving projects (Brady and Davies 2004; Davies 2004) where owners and operators demand new capabilities from their suppliers which can be developed into repeatable solutions for other projects (Davies and Brady 2000; Prencipe and Tell 2001), while communities of practice and broader collectivities play a vital role in sharing learning (Lindkvist 2005).

From a project organising perspective, the project-based firm is the holder of the resources required by the project organisation to deliver the assets desired by the owner and operator. Although there has been important work in understanding the nature and evolution of the
project-based firm (Davies and Hobday 2005; Whitley 2006), further work is required on how it deploys its operational capabilities on projects and balances them across projects. This suggests that a rather different concept of project portfolio is required from that discussed above for owners and operators. For the latter the portfolio is essentially financial; for the project-based firm it is essentially operational. Further work is also required on the dynamic capabilities of project-based firm in terms of how they seize new opportunities while maintaining the existing resource base.

Multiple Interfaces: The Project Manager.

At the heart of figure 1 is the project manager, but rather than being the apotheosis of Gaddis’ (1959) “man in the middle”, this is rather a shorthand for some relatively complex organising in its own right. Many projects have multiple people with the role of project manager working on them, and multiple teams managing the project. For instance, the Tate Modern project had three different people with the title “Project Director” each working for a different permanent organisation (Winch 2010).

An important issue here which has not received significant research attention is the challenges faced by owners who only make intermittent investments which means that they cannot effectively develop adequate in-house project capabilities as recommended by Merrow (2011). Here the “delivery partner” (London 2012 Olympics) or “programme partner” (London Crossrail) plays a vital role. The London 2012 delivery partner was a joint venture of three project-based firms which undertook both programme and project management functions for the delivery of the Olympic venues (Hone et al 2011) selected through a “competitive dialogue” procedure (Cornelius et al 2011) and answerable to the Olympic Delivery Authority, an agency of the UK government. The delivery partner then
procured and managed the suppliers for the different facilities and the cross-programme packages.

Project Organising as Temporary Configurations of Permanent Organisations

Figure 1 implies a multi-organisational perspective on project organising. Horwitch and Prahalad (1981) identified “multi-organisation enterprise” as the new strategic frontier, while Cherns and Bryant (1984) defined a project as a “temporary multiorganization” and Winch (1989) identifies “project coalitions” of firms on projects. In combination with the analysis above, this suggests that a project is best seen as a configuration of permanent organisations coming together to form a temporary coalition to deliver a particular outcome. These organisations bring different kinds of resources to the project – finance (usually the owner), and various kinds of technical and managerial skills (usually suppliers). This can be the basis of a new and challenging research agenda for project organising (Jones and Lichtenstein 2008) which acknowledges both the temporary nature of outcome delivery organisations, the permanent nature of the organisations that resource those temporary organisations, and their mutual embeddedness in wider socio-economic contexts.

At the project configuration level, one highly appropriate research methodology is social network analysis (Brass et al 2004) focusing on either the inter-organisational level (Pryke 2004) or the inter-personal level (Pauget and Wald 2013). Theoretically theoretical developments in institutional analysis emphasise the concept of an organisational field (Manning 2010; Sydow et al 2004). At the inter-organisational organisational level, we propose a focus on the interfaces between the three types of organisations: specifically, assurance for the owner/project interface; governance for the owner/supplier interface, and resourcing for the supplier/project interface. At the organisational level, the research on the
temporary project is now mature; that on the project-based firm is maturing, while that on the owner is relatively immature and does warrant greater attention than it has received to date.

One important aspect of the Lundin and Söderholm (1995) perspective on temporary project organising is the link between organisation and the project life-cycle. There has been little work on the implications for temporary project organising during movement through the life cycle; exceptions include Thamain and Wilemon (1975) on how power dynamics vary through the project life-cycle and Morris’ discussion (1994) of “matrix swing”. There is even less work on how project configurations change through the life-cycle. Winch (2010) uses transaction cost analysis to explain theoretically how governance arrangements between owners and suppliers shift, but there is little empirical work on this. Similarly, assurance arrangements will change as the project progresses. For instance owner project manager site tours have little relevance early in the project; later in the life cycle they are an important element of assurance, particularly in relation to QUENSH issues (Winch 2010; Hopkins 2012).

Concluding Thoughts

We have answered our research question of “is project organising temporary” by saying “yes, in parts”. We have also suggested that the contemporary focus on projects as temporary organisation has diverted attention from the permanent organisations that provide temporary organisations with financial resources (owners and operators) and human and material resources (project-based supplier firms). In particular, relatively little attention has been given in research on project organising to the interfaces between the temporary organisation and the two different types of permanent organisation that configure any project.
References


